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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,674	11/05/2003	Nicholas Gerald Grey	100103.52494C1	6436
30902	7590	12/22/2004	EXAMINER	
SHOOK, HERDY & BACON L.L.P. HAMILTON SQUARE, SUITE 800 600 14TH STREET, NW WASHINGTON, DC 20005-2004			TILL, TERRENCE R	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/700,674

Applicant(s)

GREY, NICHOLAS GERALD

Examiner

Terrence R. Till

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-110 is/are pending in the application.
- 4a) Of the above claim(s) 10-12, 17-32, 35, 36, 49, 50, 65, 66, 103-105 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 62-64 and 67-88 is/are allowed.
- 6) ☒ Claim(s) 1-9, 14-16, 33, 34, 37-45, 47, 48, 51-59, 61, 89, 91, 92, 94, 95 and 107-110 is/are rejected.
- 7) ☒ Claim(s) 13, 46, 60, 90, 93, 96-102 and 106 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 10/450,001.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/5/03, 5/4/04, 10/6/04, 10/12/04, 10/19/04
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 20041216
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the removable sidewall including a cover (claims 5, 22, etc.), the intermediate compartment including a tray (claims 6, 23, etc.), the front compartment being movable (claims 13, 29, etc.) and the switch being located at the rear of the housing (claim 77) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the chamfer as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. It appears, though, that the chamfer may be shown in figure 3, but there is no reference character to clearly identify it.

*Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claim 56 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 56, which depends on claim 55 which, in turn, depends on claim 51, recites "the removable side wall". This limitation is found in claim 52. Thus, claim 56 lacks antecedent basis.

*Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 94, 95 and 107 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al.

9. The patent to Jones discloses a surface cleaning apparatus comprising: a body 14 having a forward compartment 30 with an opening 58 in a lower surface thereof, and a rear compartment defined by wall 60 to enclose an electric motor; an elongate rotatable brush 31 extending across the forward compartment, the bristles adapted to extend through the opening in the forward compartment as the brush arrangement is rotated; and c) a belt 48 connecting the electric motor to the rotatable brush, wherein the lower front region of the body is chamfered (see figure 3). With respect to the recitation of the chamfer "to increase the extent to which the bristles protrude from the body in the region of the chamfer such that, when the apparatus is

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inclined relative to a surface to be cleaned. contact between the bristles and the surface to be cleaned is increased", such is considered inherent in the device of Jones et al. as Jones et al. meets all the recited structure. Jones et al. additionally disclose the electric motor is located in the rear compartment and wherein the rear compartment is provided with ground-engaging wheels 23.

*Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1-9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of Zahuranec et al.

13. The patent to Mattsson discloses a surface cleaning apparatus, comprising: a body 10 having a forward compartment 13', an intermediate compartment 19 and rear compartment (see figure 3), wherein the intermediate compartment is defined by an inclined wall 18 between the

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forward and intermediate compartments, a wall (see figure 3) between the intermediate and rear compartments, and side walls (see figure 3), an elongate rotatable brush 13,14 driven by an electric motor 15, the elongate rotatable brush extending across the forward compartment; and a belt 17 connecting the electric motor and elongate rotatable brush. Mattsson also discloses the electric motor is located in the rear compartment, the belt is enclosed within a tunnel that passes through the intermediate compartment, the intermediate compartment includes a tray 19 that can be removed and emptied so as to discharge debris, and wherein the wall between the forward and intermediate compartments is inclined rearwardly. Mattsson does not disclose one of the side walls being removable to facilitate removal of debris. The patent to Zahuranec et al. discloses of a floor sweeping device similar to that of Mattsson and further discloses one of the side walls, which includes a cover 26 removable to facilitate removal of debris from the tray 60. It would have been obvious to a person skilled in the art at the time the invention was made to modify the device of Mattsson to have one of the side walls be removable to facilitate removal of debris in view of the teaching of Zahuranec et al. as both methods of removing debris were art-recognized equivalents at the time the invention was made and either would function suitably. With respect to claim 4, Mattsson, once modified, would have the tunnel is arranged at a side remote from the removable side wall. With respect to claim 8, Mattsson discloses the claimed invention except for the wall between the forward and intermediate compartments has an angle of inclination of from 15 to 20 degrees. It would have been an obvious matter of design choice to modify the wall between the forward and intermediate compartments to have an angle of inclination of from 15 to 20 degrees, since applicant has not disclosed that this angle of inclination solves any stated

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problem or is for any particular purpose and it appears that the invention would perform equally well with the wall of Mattsson at the angle of inclination shown.

14. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson, as modified by Zahuranec et al. as applied to claim 1 above, and further in view of Watanabe et al.

15. Mattsson, as modified by Zahuranec et al., does not disclose the handle being rotatable about an axial direction. The patent to Watanabe et al. discloses a device similar to that of Mattsson including a handle 6 rotatable about an axial direction of the handle and about an axis transverse to the axial direction of the handle to facilitate steering of the apparatus (see column 5, lines 45-55). It would have been obvious to a person skilled in the art at the time the invention was made to substitute the handle of Mattsson with a handle rotatable about an axial direction of the handle and about an axis transverse to the axial direction in view of the teaching of Watanabe in order to have a more maneuverable cleaning device and ease manipulation by the user.

16. Claims 33, 34, 37, 40(37), 41, 43-45, 47, 48, 51, 54(51), 55, 57-59 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of Watanabe et al.

17. The patent to Mattsson discloses a surface cleaning apparatus, comprising: a body 10 having a forward compartment 13', an intermediate compartment 19 and rear compartment (see figure 3), wherein the intermediate compartment is defined by an inclined wall 18 between the forward and intermediate compartments, a wall (see figure 3) between the intermediate and rear compartments, and side walls (see figure 3), an elongate rotatable brush 13,14 driven by an electric motor 15, the elongate rotatable brush extending across the forward compartment; and a belt 17 connecting the electric motor and elongate rotatable brush. Mattsson also discloses the



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electric motor is located in the rear compartment, the belt is enclosed within a tunnel that passes through the intermediate compartment, the intermediate compartment includes a tray 19 that can be removed and emptied so as to discharge debris, and wherein the wall between the forward and intermediate compartments is inclined rearwardly. Mattsson does not disclose the handle being rotatable about an axial direction. The patent to Watanabe et al. discloses a device similar to that of Mattsson including a handle 6 rotatable about an axial direction of the handle and about an axis transverse to the axial direction of the handle to facilitate steering of the apparatus (see column 5, lines 45-55). It would have been obvious to a person skilled in the art at the time the invention was made to substitute the handle of Mattsson with a handle rotatable about an axial direction of the handle and about an axis transverse to the axial direction in view of the teaching of Watanabe in order to have a more maneuverable cleaning device and ease manipulation by the user. With respect to claim 44, Mattsson discloses the claimed invention except for the wall between the forward and intermediate compartments has an angle of inclination of from 15 to 20 degrees. It would have been an obvious matter of design choice to modify the wall between the forward and intermediate compartments to have an angle of inclination of from 15 to 20 degrees, since applicant has not disclosed that this angle of inclination solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the wall of Mattsson at the angle of inclination shown.

18. Claims 38, 39, 40(38), 42, 52, 53, 54(52) and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson, as modified by Watanabe et al., as applied to claim 33 above, and further in view of Zahuranec et al.

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19. Mattsson, as modified by Watanabe et al., does not disclose one of the side walls being removable to facilitate removal of debris. The patent to Zahuranec et al. discloses of a floor sweeping device similar to that of Mattsson and further discloses one of the side walls, which includes a cover 26 removable to facilitate removal of debris from the tray 60. It would have been obvious to a person skilled in the art at the time the invention was made to modify the device of Mattsson, as modified by Watanabe et al., to have one of the side walls be removable to facilitate removal of debris in view of the teaching of Zahuranec et al. as both methods of removing debris were art-recognized equivalents at the time the invention was made and either would function suitably. With respect to claim 42, Mattsson, once modified, would have the tunnel is arranged at a side remote from the removable side wall.

20. Claims 89, 91 and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattsson in view of Melito et al. '258 (cited in IDS).

21. The patent to Mattsson discloses all of the recited subject matter as listed above, but does not disclose a motor switch located at the rear of the housing to control operation of the motor. Mattsson makes no mention at all of a switch. The patent to Melito et al. '258 discloses a floor cleaning device having an electric motor 22 driving a rotary brush 40 via a belt (see column 3, lines 10-20) and a switch 50 actuated by a pedal 54 located at the rear of the housing 18. It would have been obvious to a person skilled in the art to provide a switch located at the rear of the housing to control operation of the motor to Mattsson in view of the teaching of Melito et al. '258 as there needs to be some kind of switch to control the operation of motor and having it at the rear of the housing, operated by a foot pedal, allows a user to operated the device without having to bend down. With respect to claim 91, Mattsson discloses the claimed invention except

for the wall between the forward and intermediate compartments has an angle of inclination of from 15 to 20 degrees. It would have been an obvious matter of design choice to modify the wall between the forward and intermediate compartments to have an angle of inclination of from 15 to 20 degrees, since applicant has not disclosed that this angle of inclination solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the wall of Mattsson at the angle of inclination shown.

22. Claims 108 and 109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. in view of Watanabe et al.

23. Jones et al. does not disclose the handle being rotatable about an axial direction. The patent to Watanabe et al. discloses a device similar to that of Jones et al. including a handle 6 rotatable about an axial direction of the handle and about an axis transverse to the axial direction of the handle to facilitate steering of the apparatus (see column 5, lines 45-55). It would have been obvious to a person skilled in the art at the time the invention was made to substitute the handle of Jones et al. with a handle rotatable about an axial direction of the handle and about an axis transverse to the axial direction in view of the teaching of Watanabe in order to have a more maneuverable cleaning device and ease manipulation by the user.

24. Claim 110 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al., as modified by Watanabe et al., as applied to claim 94 above, and further in view of Melito et al. '258 (cited in IDS).

25. The patent to Jones et al., as modified by Watanabe et al., discloses all of the recited subject matter as listed above, but does not disclose a motor switch located at the rear of the housing to control operation of the motor. The patent to Melito et al. '258 discloses a floor

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cleaning device having an electric motor 22 driving a rotary brush 40 via a belt (see column 3, lines 10-20) and a switch 50 actuated by a pedal 54 located at the rear of the housing 18. It would have been obvious to a person skilled in the art to provide a switch located at the rear of the housing to Jones et al. to control operation of the motor in view of the teaching of Melito et al. '258 as having it at the rear of the housing, operated by a foot pedal, allows a user to operate the device without having to bend down.

*Allowable Subject Matter*

26. Claims 62-64, 67-88 are allowed.

27. Claims 46, 60, 90, 93, 96-102 and 106 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

28. The following is an examiner's statement of reasons for allowance: With respect to claims 62, 77 and 84, the prior art does not disclose nor render obvious the claimed combination, particularly a front part of the forward compartment is movable to expose bristles on the elongate rotatable brush at the front part of the forward compartment.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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*Conclusion*

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Kenyon and Nordeen show the current state of the art in sweeper devices having dust receptacles and driven brushes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Terrence R. Till  
Primary Examiner  
Art Unit 1744

trt